

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A system for controlling the acoustic signature of a device, comprising:

a processor operable to:

receive information regarding the operating condition of the device;

determine the current acoustic level of the device based on the current

operating condition information;

generate a signal indicating the acoustic level; and

generate at least one signal that can be used to control the operating condition

of the device to achieve a desired acoustic level; and

determine the rate of increase in the acoustic level.

2. (Currently amended) The system according to Claim 1 wherein the processor is further operable to determine whether the level of the device acoustic signature is above the desired level; and ~~determine the rate of increase in the acoustic level.~~

3. (Original) The system according to Claim 1 wherein the processor is further operable to generate at least one advisory cue based on the rate of increase of the acoustic level.

4. (Original) The system according to Claim 1 wherein the processor is further operable to detect selection of an option to limit maneuvers of the device.

5. (Original) The system according to Claim 1 wherein the processor is further operable to display symbols indicating changes to the operating condition that can be made to control the current acoustic level.

6. (Original) The system according to Claim 1 wherein the processor is further operable to determine the amount of time the acoustic level has exceeded the desired acoustic level.

7. (Original) The system according to Claim 6 wherein the processor is further operable to issue alert cues indicating urgency to reduce the acoustic level based on the amount of time and the extent to which the acoustic level has exceeded the desired acoustic level.

8. (Original) The system according to Claim 1 wherein the processor is further operable to generate signals to automatically control operating conditions to reduce and maintain the acoustic level within the desired acoustic level.

9. (Original) The system according to Claim 1 wherein the processor is further operable to generate signals to indicate at least one previous value of the acoustic level.

10. (Original) The system according to Claim 1 wherein the processor is further operable to generate signals to indicate at least one predicted value of the acoustic level based on expected maneuvers and operating conditions.

11. (Original) The system according to Claim 1 wherein the processor is further operable to generate signals to indicate an alternate navigation route that requires less maneuvering to reduce variation in the acoustic level from the desired acoustic level.

12. (Original) The system according to Claim 1 wherein the processor is further operable to generate signals to allow a crewmember to select a feature on a display and generate information regarding the acoustic level associated with the selected feature.

13. (Original) The system according to Claim 1 wherein the processor is further operable to generate an aural cue based on the acoustic level.

14. (Original) The system according to Claim 1 wherein the processor is further operable to generate a tactile cue based on the acoustic level.

15. (Original) The system according to Claim 1 wherein the processor is further operable to generate a color-coded visual cue based on the acoustic level.

16. (Original) The system according to Claim 1 wherein the processor is further configured to generate a cue indicating the strength of the acoustic level based on a combination of Mach number, altitude, device weight and acceleration.

17. (Original) The system according to Claim 1 wherein the processor is further configured to generate a contour line indicating the pressure level of the shock wave acoustic signature.

18-54. (Canceled)

55. (New) A system for controlling the acoustic signature of a device, comprising: a processor operable to:

receive information regarding the operating condition of the device;
determine the current acoustic level of the device based on the current operating condition information;
generate a signal indicating the acoustic level;
generate at least one signal that can be used to control the operating condition of the device to achieve a desired acoustic level; and
detect selection of an option to limit maneuvers of the device.

56. (New) The system according to Claim 55 wherein the processor is further operable to display symbols indicating changes to the flight condition than can be made to control the current acoustic level, wherein the changes include at least one of the group of: reducing acceleration, reducing velocity, and reducing bank angle.

57. (New) The system according to Claim 55 wherein the processor is further operable to generate signals to indicate a history of the device's acoustic level.

58. (New) The system according to Claim 55 wherein the processor is further operable to generate signals to indicate an alternate navigation route that requires less maneuvering to reduce variation in the acoustic level from the desired acoustic level.

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59. (New) The system according to Claim 55 wherein the processor is further operable to generate signals to allow a user to select a feature on a display and generate information regarding the acoustic level associated with the selected feature.

60. (New) The system according to Claim 55 wherein the processor is further operable to vary the size of the cue based on the acoustic level.

61. (New) The system according to Claim 60 wherein the processor is further operable to vary the shape of the cue based on the acoustic level.

62. (New) The system according to Claim 55 wherein the processor is further operable to generate signals to indicate an alternate navigation route around densely populated areas.

63. (New) The system according to Claim 55 wherein the processor is further operable to display a terrain map in the vicinity of the device and cues overlaying the terrain map indicating the footprint of the device's acoustic signature on the terrain map.

64. (New) The system according to Claim 63 wherein the processor is further configured to determine the acoustic level using multi-dimensional data tables based on Mach number, altitude, weight and acceleration, and bank angle of the device.

65. (New) The aircraft according to Claim 55 wherein the processor is further configured to generate a contour line indicating the pressure of the acoustic level.

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